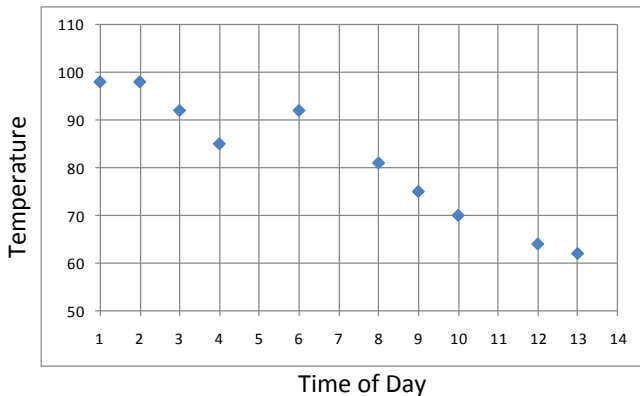


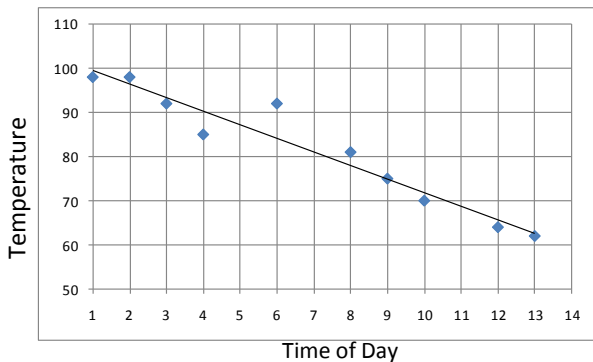
Scatter Plot & Sequences Extra Help Notes

Scatter Plot/Line of Best Fit Questions

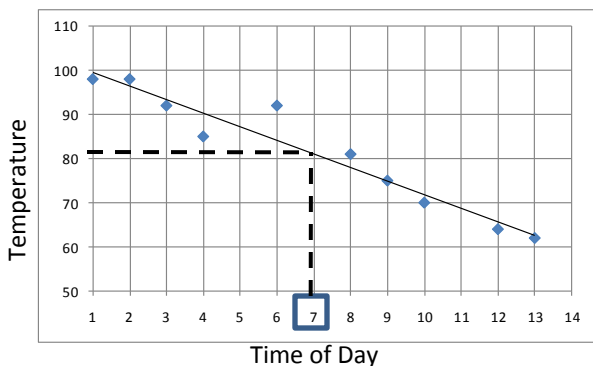
Below is a scatter plot of the temperature in Atlanta (y) plotted against the time of day on the x-axis. Using the scatter plot, can you predict what the temperature in Atlanta was at 7:00?



STEP 1: DRAW A LINE OF BEST FIT (TREND LINE)
Whenever you are asked to “predict” or “estimate” using a scatter plot, you need to draw a line of best fit (this line should go through the middle of your points).



STEP 2: USE THE LINE TO ESTIMATE
Find the x-value you are given and draw a straight dashed line from that x-value to your line of best fit. Once you hit your line of best fit, draw another dashed line over until you hit the other axis.



Based on this scatter plot, you can predict the temperature would be **80 or 81** degrees.

Sequences Questions

Find the 21st term of the following Arithmetic sequence: 12, 17, 22, 27,....

The formula for finding the nth term of an Arithmetic sequence is:

$$a_n = a_1 + (n - 1)d$$

a_1 = First/initial term

n = term number you are trying to find

d = the common difference

In this example:

$$a_1 = 12$$

$$n = 21$$

$$d = 17 - 12 = 5$$

Once you have found “ a_1 nd”, you can simply plug these numbers into the formula:

$$a_n = a_1 + (n - 1)d$$

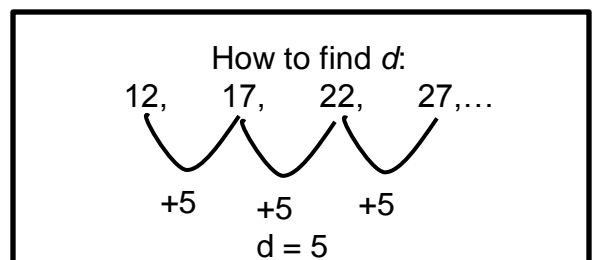
$$a_{21} = 12 + (21 - 1)(5)$$

$$a_{21} = 12 + (20)(5)$$

$$a_{21} = 12 + 100$$

$$a_{21} = 112$$

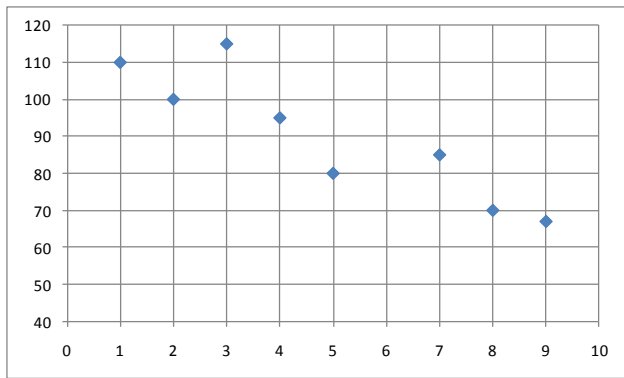
Therefore, the 21st term of the Arithmetic sequence will be **112**.



(flip sheet over for practice problems)

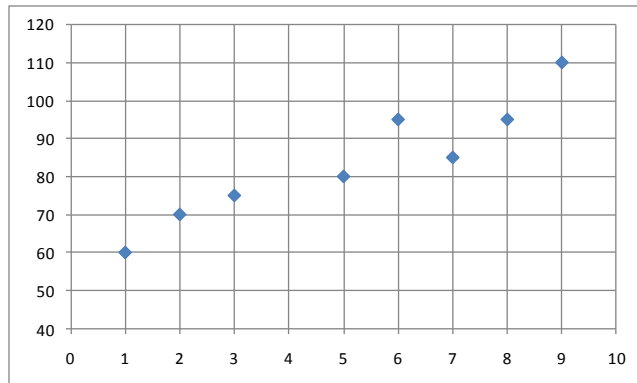
Extra Practice Problems

1. Using the scatter-plot below, what would you predict the y-value to be at an x-value of 6?



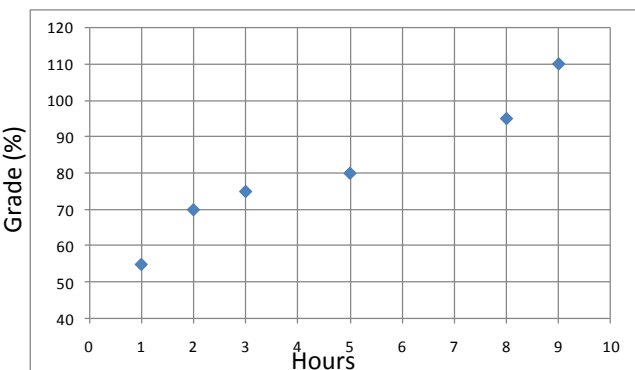
- A) 93 B) 83 C) 73 D) 63

2. Using the scatter-plot below, what would you predict the y-value to be at an x-value of 4?



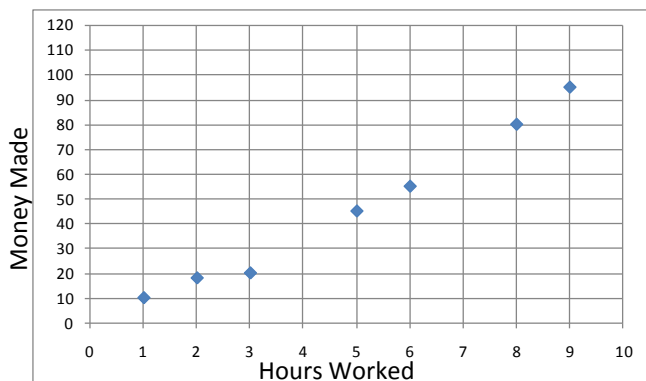
- A) 78 B) 83 C) 70 D) 63

3. The scatter plot below shows the grade Emily will get if she studies x hours. How many hours does she have to study in order to get an 85% on her upcoming math test?



- A) 4 B) 6 C) 8 D) 10

4. The scatter plot below shows the amount of money Amy makes (y) and the number of hours she works (x). How much would you expect her to make if she work for 4 hours?



- A) \$22 B) \$37 C) \$47 D) \$58

5. Find the 19th term of the following sequence: 12, 9, 6, 3,...

- A) -3 B) 19 C) -42 D) -39

7. Find the 32nd term of the following sequence: 4, 2, 0, -2, ...

- A) -54 B) -60 C) -58 D) -39

6. Find the 12th term of the following sequence: 22, 27, 32, ...

- A) 12 B) 64 C) 72 D) 77

Answer Key

1. B	5. C
2. A	6. D
3. B	7. C
4. B	